

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A data transmission sending out-device, in which electronic program guide (EPG) associated-data associated with and multiplexed with main-broadcast program data is produced and transmitted, sent out, comprising:

producing means for producing the EPG data, the EPG data including one or more tables; associated data of a prescribed type; and

transmitting sending out-means for transforming the EPG associated-data of the prescribed type produced by the producing means into a bit stream and transmitting sending out the associated data transformed into the bit stream;

wherein

the main data is a broadcast program,
one or more tables based on electronic program guide information of the
broadcast program are produced as the associated data by the producing means,

when the data transmission sending out-device determines that the amount of information in the EPG associated-data produced by the producing means exceeds an amount necessary to achieve a sending out rate equal to or lower than the prescribed upper limit bit rate and a sending out frequency for repeatedly send out at least one type of table in the EPG data via the bit stream at a frequency equal to or higher than a predetermined specific sending-out frequency of the at least one type of table, while transmitting the bit stream at a rate equal to or lower than a predetermined bit rate, the amount of information in the EPG data at least one of the tables is decreased so that the amount of information in the associated EPG data is less than or equal to the necessary amount, and

the one or more tables are transformed into the bit stream by the sending out means, and the one or more tables transformed into the bit stream are sent out according to the sending out rate equal to or lower than the prescribed upper limit bit rate and the sending out frequency for the at least one type of table by the sending out means.

2-7. (canceled)

8. (Currently Amended) A data sending-out device according to claim 1, wherein multiple types of tables are produced by the producing means by adjusting the amounts of information in the types of tables according to a plurality of priorities of the types of tables to allow the tables-bit stream to be sent out at the sending-out transmitted at a bit rate equal to or lower than the prescribed upper limit predetermined bit rate and allow the tables to be sent out at sending-out frequencies equal to or higher than specific sending-out frequencies of the types of tables.

9. (Currently Amended) A data sending-out device according to claim 1, wherein multiple types of tables are produced by the producing means by adjusting the amounts of information in the types of tables according to a plurality of sending-out frequency reduction rates of the types of tables to allow the tables-bit stream to be sent out at the sending-out transmitted at a bit rate equal to or lower than the prescribed upper limit predetermined bit rate and allow the tables to be sent out at sending-out frequencies equal to or higher than specific sending-out frequencies of the types of tables.

10. (Currently Amended) A data sending-out device according to claim 8, wherein the types of tables are produced by the producing means by adjusting the amounts of information in the types of tables according to a plurality of sending-out frequency reduction rates of the types of tables to allow the tables-bit stream to be sent out at the sending-out transmitted at a bit rate equal to or lower than the prescribed upper limit predetermined bit rate and allow the tables to be sent out at the sending-out frequencies equal to or higher than the specific sending-out frequencies of the types of tables.

11-13. (canceled)

14. (Currently Amended) A data sending-out device according to claim 1, wherein the one or more tables are again produced in cases where it is impossible to ~~send out the one or more tables at the sending out transmit the bit stream at a bit rate equal to or lower than the prescribed upper limit bit rate or it is impossible to send out the at least one type of table at the sending out a frequency equal to or higher than the specific sending-out frequency.~~

15. (Currently Amended) A data sending-out device according to claim 1, wherein the amount of information ~~in at least one type of table to be included in the EPG data~~ is calculated prior to the production of the ~~EPG data, at least one type of table, and the at least one type of table EPG data~~ is produced by the producing means by adjusting the amount of information ~~in the at least one type of table to be included in the EPG data to allow the one or more tables bit stream to be sent out at the sending out transmitted at a bit rate equal to or lower than the prescribed upper limit predetermined~~ bit rate and to allow the at least one type of table to be sent out at ~~the sending out a frequency equal to or higher than the specific sending-out frequency.~~

16. (Currently Amended) A data sending-out device according to claim 8, wherein the amount of information ~~in at least one type of table to be included in the EPG data~~ is calculated prior to the production of the ~~EPG data, at least one type of table, and the at least one type of table EPG data~~ is produced by the producing means by adjusting the amount of information ~~in the at least one type of table to be included in the EPG data to allow the tables bit stream to be sent out at the sending out transmitted at a bit rate equal to or lower than the prescribed upper limit predetermined~~ bit rate and to allow the at least one type of table to be sent out at ~~the sending out a frequency equal to or higher than the specific sending-out frequency.~~

17. (Currently Amended) A data sending-out device according to claim 9, wherein the amount of information ~~in at least one type of table to be included in the EPG data~~ is calculated prior to the production of the ~~EPG data, at least one type of table, and the at least one type of table EPG data~~ is produced by the producing means by adjusting the amount of information ~~in the at least one type of table to be included in the EPG data to allow the tables bit stream to be sent out at the~~

~~sending-out transmitted at a bit rate equal to or lower than the prescribed upper limit predetermined~~ bit rate and to allow the at least one type of table to be sent out at the sending-out a frequency equal to or higher than the specific sending-out frequency.

18. (Currently Amended) A data sending-out device according to claim 15, wherein, prior to the production of at least one type of table,

the amount of information for each type of table information in the EPG data for which the amount of ~~the electronic program guide~~ information is not predetermined is detected and added to a summed value in the calculation of the amount of information,

the amount of information for each type of table information in the EPG data for which the amount of ~~the electronic program guide~~ information is predetermined is read out from a record and is added to the summed value in the calculation of the amount of information, and

the amount of information in the at least one type of table EPG data is calculated.

19. (Currently Amended) A data sending-out device according to claim 16, wherein, prior to the production of at least one type of table,

the amount of information for each type of table information in the EPG data for which the amount of ~~the electronic program guide~~ information is not predetermined is detected and added to a summed value in the calculation of the amount of information,

the amount of information for each type of table information in the EPG data for which the amount of ~~the electronic program guide~~ information is predetermined is read out from a record and is added to the summed value in the calculation of the amount of information, and

the amount of information in the at least one type of table EPG data is calculated.

20. (Currently Amended) A data sending-out device according to claim 17, wherein, prior to the production of at least one type of table,

the amount of information for each type of table information in the EPG data for which the amount of ~~the electronic program guide~~ information is not predetermined is detected and added to a summed value in the calculation of the amount of information,

the amount of information for each type of table information-in the EPG data for which the amount of the electronic program guide information is predetermined is read out from a record and is added to the summed value in the calculation of the amount of information, and the amount of information in the at least one type of table-EPG data is calculated.

21. (Currently Amended) The data sending-out device according to claim 1, wherein the producing means produces multiple types of tables, and when the amount of information in the associated-EPG data exceeds the necessary amount to achieve the sending out predetermined bit rate and the sending out frequency, the amount of information in the at least one of the tables-EPG data is decreased according to at least one of: relative priorities of the types of tables, and relative importance of types of information within a table.
22. (Currently Amended) The data sending-out device according to claim 21, wherein the amount of information in the at least one of the tables-EPG data is decreased by deleting information of relative low importance.